

Surface Water Monitoring Systems Information

Stream Monitoring Stations

During the period covered by this report, the fixed-station sampling network used by NMED consisted of 17 stations on ten New Mexico streams, one station on the Animas River in Colorado and one station on the Rio Grande in Texas (Figure 20). All data from these stations are collected by the United States Geological Survey (USGS). All water quality data from these stations are entered into STORET, the EPA computerized data storage system, and WATSTORE, the USGS computerized data storage system (Table 21). Water quality sampling efforts at the 19 stream stations of interest are funded jointly by NMED and USGS. The station on the Animas River near Cedar Hill, Colorado,

is funded by the United States Bureau of Land Management. The station on the Rio Grande at El Paso is funded by USGS as part of two different longterm projects ~ the National Stream Quality Accounting Network (NASQAN) and the National Water Quality Assessment Program (NAWQA). Stations under these studies were selected to represent outflow from major drainage basins or sub-basins. The primary objective of these networks is to measure any regional variations in water quality and to detect water quality trends.

Special Surveys

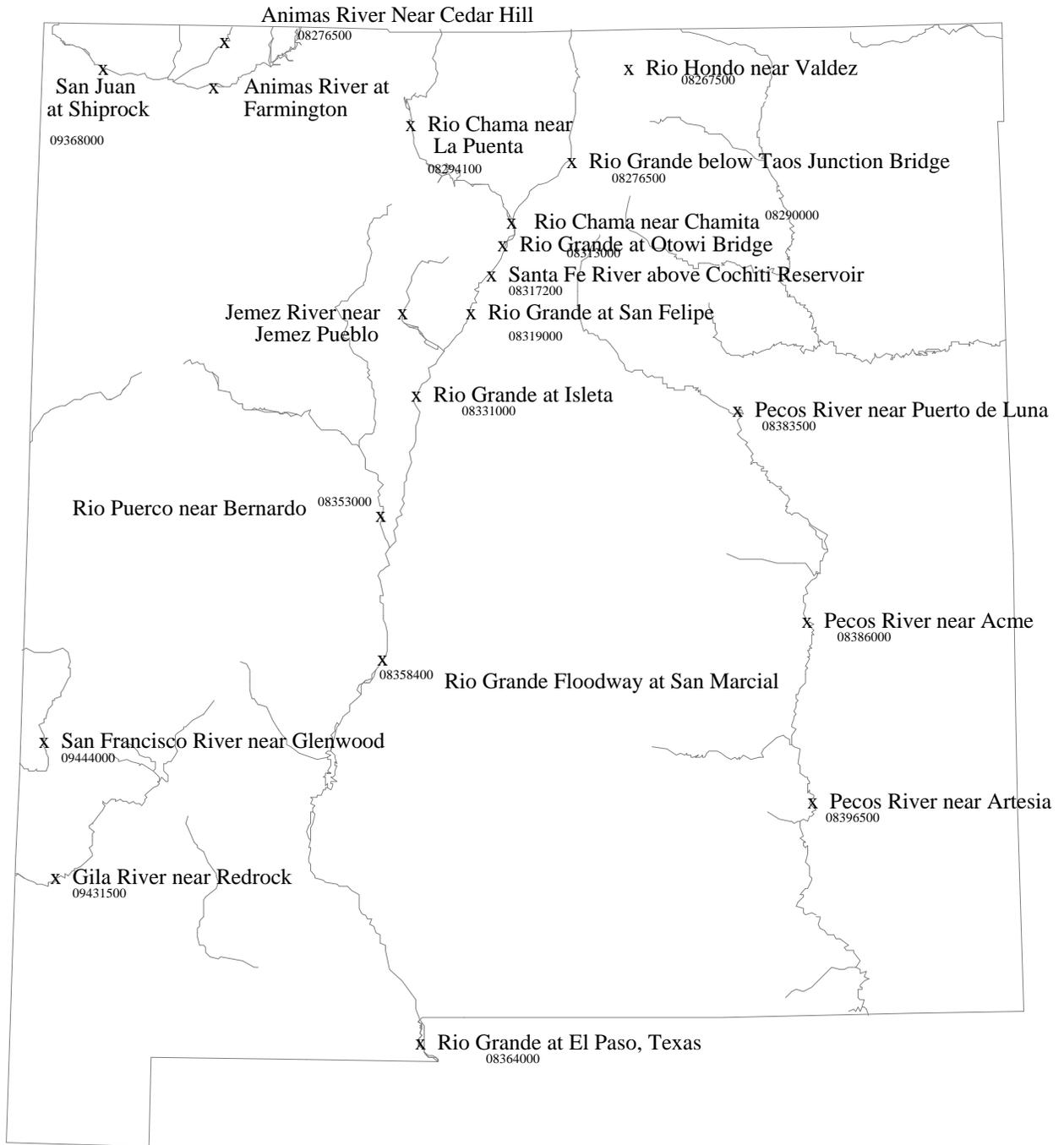
The Surface Water Quality Bureau of the NMED conducts several special surveys each year on a prioritized basis in selected stream segments. Parameters

sampled during these surveys are listed in Table 22.

Toxics Monitoring

Total concentrations of certain trace elements are monitored, generally on a semiannual basis, at all except one of the stations in the New Mexico water quality surveillance network. Bottom material samples are collected annually at all stations and analyzed for the parameters listed. Trace element data are also collected routinely during special surveys. Organic chemicals monitored during special surveys of major watersheds are listed in Table 21. Table 23 lists toxics monitored during a 1998 survey of representative effluent discharges.

Figure 20. Location of Stream Monitoring Stations of Interest to New Mexico Sampled Regularly by the United States Geological Survey.



x = Stream Water Quality Monitoring Station

Table 20. Location of Current U.S. Geological Survey Stream Quality Monitoring Stations funded by the New Mexico Environment Department

WATSTORE or STORET Station No.	Location
08267500	Rio Hondo near Valdez
08276500	Rio Grande below Taos Junction Bridge
08284100	Rio Chama near La Puente
08290000	Rio Chama near Chamita
08313000	Rio Grande at Otowi Bridge
08317200	Santa Fe River above Cochiti Lake
08319000	Rio Grande at San Felipe Pueblo
08324000	Jemez River near Jemez Pueblo
08331000	Rio Grande at Isleta Pueblo
08353000	Rio Puerco near Bernardo
08358400	Rio Grande Floodway at San Marcial
08383500	Pecos River near Puerto de Luna
08396500	Pecos River near Artesia
09364500	Animas River at Farmington
09368000	San Juan River at Shiprock
09431500	Gila River near Redrock
09444000	San Francisco River near Glenwood

Table 21.

**Parameters and STORET Codes for Organic Chemicals
Analyzed During the Special Water Quality Surveys
Conducted in 1996 and 1997.**

Aldrin	039330
Alpha Benzene Hexachloride	039337
Beta Benzene Hexachloride	039338
Chlordane, alpha	039348
Chlordane, gamma	039810
Chloropyrifoser	077969
DDD	039360
DDE	039365
DDT	039370
Delta Benzene Hexachloride	034259
Dieldrin	039380
Endosulfan	039388
Endosulfan Sulfate	082623
Endosulfan, beta	082624
Endrin	039390
Endrin Aldehyde	082622
Endrin Ketone	078008
Gamma-BHC(Lindane)	039340
Heptachlor	039410
Heptachlor Epoxide	039420
Hexachlorobenzene	039700
Hexachlorocyclopentene	078022
Methoxychlor	039480
PCB - 1232	039492
PCB - 1242	039496
PCB - 1248	039500
PCB - 1254	039504
PCB - 1260	039508
PCP (Pentachlorophenol)	039032
Picloram	039720
Pronamide	039080
Propachlor	030295
Propoxur	030296
Silvex	039760
Simazine	039055
Terbacil	030311
Toxaphene	039400
Triadimefon	038892
Trifluralin	081284

Table 22. Sample Types, Parameters and STORET Codes for Environmental Measurements Performed During Special Surveys Conducted by the New Mexico Environment Department

TYPE	PARAMETER	STORET CODE
Physical	Conductivity	00402
	Temperature	00010
	Total non-filterable residue (TSS)	00530
	Total filterable residue (TDS)	70300
	Color	00081
Chemical	Fluoride	00951
	Bicarbonate	00440
	BOD ₅ (5-day)	00310
	Calcium	00916
	Chloride	00940
	Magnesium	00925
	pH	00400
	Potassium	00935
	Sodium	00930
	Sulfate	00945
	Total Kjeldahl nitrogen	00625
	Total residual chlorine	450060
	Total ammonia nitrogen	00610
	Total nitrite + nitrate nitrogen	00630
	Total hardness (as CaCO ₃)	00900
	Total organic carbon	00680
	Total phosphorus	00665
	Total alkalinity	00410
	Total cyanide	00720
	Aluminum dissolved (total)	01106 (01105)
	Arsenic dissolved (total)	01000 (01002)
	Barium dissolved (total)	01005 (01007)
	Beryllium dissolved (total)	01010 (01012)
	Boron dissolved (total)	01020 (01022)
	Cadmium dissolved (total)	01025 (01027)
	Calcium dissolved	82036 (82032)
	Chromium dissolved (total)	01030 (01034)
	Cobalt dissolved (total)	01035 (01037)
	Copper dissolved	01040 (01042)
	Iron dissolved (total)	01046 (01045)
	Lead dissolved (total)	01049 (01051)
	Magnesium dissolved	82037 (82033)
	Manganese dissolved (total)	01056 (01055)
Mercury dissolved (total)	71890 (71900)	
Molybdenum dissolved (total)	01060 (01062)	
Nickel dissolved (total)	01065 (01067)	
Selenium dissolved (total)	01145 (01147)	
Silicon dissolved	01140 (01142)	
Silver dissolved (total)	01075 (01077)	
Strontium dissolved	01080 (01082)	
Tin dissolved (total)	01140 (01142)	
Vanadium dissolved (total)	01085 (01087)	
Zinc dissolved (total)	01090 (01092)	
Biological	Fecal coliform bacteria (MF)	74055
	BOD ₅ (5 day)	00310
Radiochemistry	Radium-226 total	09501
	Radium-228 total	11501
	Radium-226 + -228	11503

Table 23. Toxics Monitored in Selected Point Source Discharges, 1998.

Parameter	STORET Code
Water Chemistry	
BOD ₅	00310
TSS Residual Total Non-filterable	00530
COD	00340
Phosphate as P	00665
Nitrate Nitrogen as N	00630
Ammonia Nitrogen as N	00610
Total Kjeldahl Nitrogen as N	00625